# EXHIBIT 5

UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF NEW YORK

SCF ARIZONA,

Plaintiff,

vs. ) 09 Civ. 9513 (WHP)

WACHOVIA BANK, N.A.,

Defendant.

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VIDEOTAPED DEPOSITION OF R. GLENN HUBBARD
New York, New York
Wednesday, March 2, 2011

Reported by:
LYNN VAN DEN HENDE
RPR, CSR, RMR, CRR, CLR
JOB NO: 20956

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March 2, 2011
10:02 a.m.

Videotaped deposition of R. GLENN HUBBARD, held at the offices of Butzel Long, 380 Madison Avenue, New York, New York, pursuant to Notice, before Lynn Van Den Hende, a Registered Professional Reporter, Certified Shorthand Reporter, Registered Merit Reporter, Certified Realtime Reporter, Certified LiveNote Reporter and Notary Public within and for the State of New York.



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DOUGLAS S. LAND, THE CHESAPEAKE GROUP

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VIDEO OPERATOR: Good morning. Here begins tape number 1 of the videotaped deposition of Mr. Glenn Hubbard in the matter of SCF Arizona, plaintiff, versus Wachovia Bank, defendants.

This deposition is being held at the offices of Butzel Long, 380 Madison Avenue, New York, New York, on March 2, 2011 at approximately 10:02 a.m.

My name is Victor Disla. I'm the legal video specialist. The court reporter today is Lynn Van Den Hende.

Will counsel please introduce themselves for the record.

MR. KARLINSKY: Beginning with counsel for plaintiff, my name is Martin Karlinsky. I'm with the firm of Butzel Long.

With me today is Regina Alter, also a partner in the firm of Butzel Long, and Douglas Land of the Chesapeake Group.

Mr. Land is a consultant to my firm in this matter.

MR. COBETTO: Jack Cobetto with Reed Smith for the defendant, Wachovia.



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VIDEO OPERATOR: Will the court reporter please swear in the witness.

(Witness sworn.)

R. G L E N N H U B B A R D,
called as a witness, having been duly sworn by a Notary Public, was examined and testified as follows:

EXAMINATION

BY MR. KARLINSKY:

Q. Good morning, Professor Hubbard.
I assume it's okay to call you "Professor"?

**A. Anything -- anything you like. Glenn, Professor.**

Q. Except late for dinner?

**A. Except late for dinner.**

Q. Professor is what I'm most comfortable with.
When were you retained in this matter, sir?

**A. I recall my first conversation was in late August, I don't remember the date, with Mr. Cobetto.**
**The actual retention I believe is in**

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Q. Who prepared the exhibits that are annexed to Exhibit 251? That would be Exhibits 1 through 28.

**A. The quantitative information in the exhibits was collected under my direction by the staff at Analysis Group.**

**I'm a designer and ultimate preparer, but I relied on them for the data.**

Q. And they worked under your direction and supervision, I take it?

**A. Yes, sir.**

Q. Which individuals at Analysis Group assisted you?

**A. Principally Mr. Wong, W-o-n-g, and Mr. Visbal, V-i-s-b-a-l.**

Q. And their first names are?

**A. Andrew in the first case and Orlando in the second.**

Q. And just what are their backgrounds generally?

**A. They're economists.**

Q. They both hold MBA degrees?

**A. I believe -- well Mr. Wong certainly holds a Ph.D degree.**



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**I'm not sure about Mr. Visbal, whether he has a Ph.D. or a business degree.**

Q. And you've worked with them before at Analysis Group?

**A. I've certainly worked with Analysis Group. I had not worked with Mr. Wong or Mr. Visbal.**

Q. Did they prepare any particular part of the actual report itself, other than the exhibits?

**A. No, sir. I drafted the report.**

Q. You drafted the report yourself?

**A. Yes, sir.**

Q. And no one else worked with you on this?

**A. Insofar as we discussed before, of preparing the exhibits; most of the text is really discussing the exhibits.**

Q. Did you direct them with respect to gathering the data that underlie the exhibits?

**A. Yes, sir.**

Q. And how did you do that? Was that a direction given orally or in writing?

**A. Orally, when we started the project,**



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**given the assignment that I had, I wanted to make sure that they constructed samples that were appropriate for me as benchmarks.**

**And then I had a set of data that I wanted them to collect, both on securities prices of a variety of forms you see in the report, and also collecting a universe of analysts' reports.**

**So all of those were collected by them in response to that direction.**

Q. Did you prepare a list, Professor Hubbard, of the materials that you reviewed in connection with the preparation of your report?

**A. Do you mean as distinct from the list that's in the report which is the documents considered?**

Q. No, I was actually asking you if you prepared such a list, including the one that appears in the report.

**A. I don't follow your question.**

**Certainly ex ante --**

Q. It may have been --

**A. No, no, I apologize. Ex ante --**

Q. It may have been inartful. Let me just do it again.



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**A. Okay.**

Q. Let me just do it again.

**A. Okay.**

Q. Turn to Appendix A, would you.

**A. Yes.**

Q. Now that's your curriculum vitae, is it not?

**A. Yes.**

Q. And it's followed by Appendix B to the report, Exhibit 251?

**A. Yes.**

Q. Which is a listing of the testimony you've given over the last -- I guess it's three years, correct?

**A. Yes, sir.**

Q. And then exhibit -- sorry, Appendix C, titled, "Materials Relied Upon," is this the list you were referring to?

**A. Yes, sir.**

**It collects the articles, the analysts' report and then lists the data sources that were used.**

Q. All right. And is it fair to say that Appendix C contains all of the materials which

you considered in connection with the preparation of your report?

**A. Generally, yes.**

**I mean, my skill as an economist is something I bring that isn't necessarily in any one of these things.**

**But in terms of data I actually used, yes.**

Q. In terms of data that you considered, yes.

**A. Correct, yes.**

Q. And I noticed -- maybe I'm wrong about this, but I did not see anywhere in Appendix C that you had listed the government's financial crisis inquiry report?

**A. That's right. I did not, no.**

Q. And that's not a document that you -- or data that you relied upon or considered in preparing your report?

**A. No.**

**I'd be happy to discuss it with you, if you like. But, no, not for the assignment that I was given.**

Q. You didn't think it relevant to your





assignment?

**A. No, sir, I didn't.**

Q. Now you know what the Financial Crisis Inquiry Report is?

**A. Yes, sir.**

**There are actually three of them. The bigger one is the one you have. But there are three of them floating around.**

Q. Are they floating around?

**A. Well in E-space.**

Q. They're a little heavy to be floating.

**A. Well the others are lighter than that one.**

Q. I see.

**A. Right.**

Q. This is the only one I know of, the one that's sitting on the table in front of me.

Well we'll get to that a little bit later, in any event.

Is there anything that you considered in connection with the preparation of your report that is not listed in Appendix C, other than, as you told me, your bringing your background as an economist and professor of economics and finance





to the assignment?

**A. I don't believe so, no.**

Q. And did you read the first amended complaint in this case?

**A. Yes, sir, at the beginning of the project I did.**

Q. I didn't see that listed anywhere here.

**A. Okay. I apologize. Because I did read it.**

Q. So that would be a correction to your Appendix C?

**A. Yes.**

Q. Did you read any other part of the legal filings in this case, SCF Arizona versus Wachovia Bank?

**A. I don't recall doing that, no.**

Q. Did you ask to review any of the other legal filings?

**A. No, sir.**

**I was given a pretty specific economic assignment.**

Q. Did you review any other materials that are case specific to this case?





**A. No, sir, other than the other expert reports.**

Q. Which ones -- which expert reports did you review?

**A. Mr. Geczy's report and Mr. Rosenfarb.**

Q. Those would be the plaintiff's experts' reports?

**A. Yes, sir.**

Q. And did you also read the report that Professor Peavy prepared on behalf of Wachovia Bank?

**A. No, sir, I did not.**

Q. You didn't read Peavy's report?

**A. No, sir.**

Q. Did you ask to read Peavy's report?

**A. No, sir.**

**Its subject, as I understood it, was different than what I was working on.**

Q. How about Mr. Cohen's report, Jeffrey Cohen?

**A. No, sir, I didn't read that either.**

Q. Do you know who Mr. Cohen is?

**A. Yes. He works for Analysis Group.**

Q. And you didn't ask to see his report?

**A. No, sir.**

Q. You didn't read any of the depositions taken in this case?

**A. No, sir, I did not.**

Q. And you didn't review the exhibits which were marked during the course of the depositions, other than the two you have in front of you, I take it, which you prepared?

**A. No, sir.**

Q. Unless they happened to be coincident with something listed on Appendix C?

**A. If they are in there, then, yes.**

Q. Now let me go back to the exhibits for a moment. There's 28 there.

They are, broadly speaking, charts or spreadsheets of data, as well as various graphs and illustrations; would that be pretty accurate?

**A. Yes, sir.**

**There's some tabular information in some of the later exhibits, but as a general rule, yes, that's what it is.**

Q. And who actually prepared those exhibits physically?

**A. Typed them, is that what you're**





**asking?**

Q. Well, inputted the data and formatted them and produced the final exhibit.

**A. The formatting was done by staff at Analysis Group after I'd reviewed the actual output.**

Q. But you approved the data to input into them, I take it?

**A. Yes, sir.**

Q. And then they did the data input?

**A. Yes, sir.**

Q. And then they turned out the final product?

**A. Yes, sir.**

Q. Which you then reviewed?

**A. Yes, sir.**

Q. And you approved?

**A. Yes, sir.**

Q. And you adopt all these exhibits, even though you didn't physically prepare them?

**A. I do, yes.**

Q. As I asked Professor Peavy yesterday, in effect, you would say these are your exhibits, "I own them," true?





**A. That is absolutely correct.**

MR. COBETTO: Objection to the form.

Q. Did you personally check the data to confirm its accuracy?

**A. I did spot check data in the backup binder that I believe was probably turned over to you as well, checking price data.**

**I didn't check every data point.**

**But I did check to make sure that I understood the series and what data were being used.**

Q. All right. And you did enough checking, I take it, so that you would say that you're confident that the data in the material as presented is complete and accurate?

**A. Yes, sir.**

Q. Did you have any concerns with the quality of any of the underlying data that you used to prepare the report or the exhibits?

**A. No, sir.**

**There were times in the report I highlighted when data weren't available on something and noted that; so I don't know if you would call that a concern.**





**But no concern about quality of data presented.**

Q. Is it fair to say, Professor Hubbard, that -- that the material -- that -- excuse me, that the data upon which you relied in preparing the report and exhibits is the type of data that economists typically rely upon in reaching professional judgments?

**A. Yes, sir.**

Q. And what specific sources did you use to obtain the data underlying the report in exhibits?

**A. A variety of sources.**

**For pricing data, generally Bloomberg, sometimes Capital IQ.**

**For the analyst reports that are there, the Thomson IBES service was used.**

**And then there is some individual reports that are cited by name; and then of course academic articles.**

Q. Can you, looking at your report for the exhibits, point me to any indication where you felt that data wasn't available?

**A. Well the footnotes and exhibits will**

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**percent.**

Q. Have you received any payment yet?

**A. I don't believe I have.**

**The way attribution works, as opposed to my bills, is it's not until the client pays Analysis Group that I would see it. And I haven't seen it, so --**

Q. I'll see if I can do something about that.

**A. Okay. So I can't answer as a result.**

MR. KARLINSKY: Why don't we take a 10 minute break at this point, because I'm about to turn to a different subject.

VIDEO OPERATOR: The time now is 10:45 a.m. And this marks the end of tape number 1.

(Recess taken from 10:45 a.m. to 10:59 a.m.)

VIDEO OPERATOR: The time now is 10:59 a.m. and this marks the beginning of tape number 2.

BY MR. KARLINSKY:

Q. Professor Hubbard, this morning you used the phrase, "the subject matter of this



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proceeding"?

**A. I think I was talking about the subject matter that I was asked to do.**

Q. No, I think you were referring to the subject matter of the case itself.

**A. I don't recall. If you say so, sure.**

Q. Do you know what the subject matter of the case is?

**A. My understanding is the subject matter is whether the defendant breached a duty in the sec lending relationship.**

**That's not my assignment, but my understanding is that's the big issue.**

Q. What kind of duties?

Or maybe I should say what kind of duty?

**A. Well at the broadest level I think what's alleged is a breach of a fiduciary responsibility.**

Q. And you would agree, would you not, that Wachovia had fiduciary duties to SCF Arizona?

**A. Yes.**

Q. What is the subject matter of your



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report?

**A. I was asked to examine whether the bankruptcy of Lehman was reasonably foreseeable.**

Q. Were you asked to opine on that subject, or did you suggest that you could opine on that subject?

**A. That's what I was asked to opine on.**

Q. And the standard of reasonably foreseeable, was that standard supplied to you by counsel?

**A. No, sir.**

**What I did was do -- as you could see from the report, a holistic approach of looking at a number of data indicators and treating the data indicators collectively to come to that conclusion.**

Q. I guess what I'm trying to -- strike that.

I'm not certain that was directly responsive to my question. So let's just stay with it and explore it a little bit more.

You've used the standard of reasonably foreseeable with respect to the Lehman bankruptcy.



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That is whether it was reasonably foreseeable, correct?

**A. Yes, sir.**

Q. Who formulated that particular standard of reasonably foreseeable?

**A. To my knowledge, that's not a legal term of art here.**

**I used it as a summary statistic for talking about a series of data that would have informed market expectations about that probability.**

Q. Is it a term of art in economics?

**A. Whether a bankruptcy is foreseeable is certainly an economic question, yes.**

Q. Are you familiar with the use of the term "reasonably foreseeable" in the economic literature?

**A. Generally speaking, that would be a way of characterizing default probabilities or things that are inferred from derivative markets as providing information about the foreseeability of a default event.**

Q. And it's used in the literature in that sense?

**A. That idea is certainly used in the literature. That is the notion of predicting a default.**

Q. Do you have any relationship with a company called Circle Peak Capital?

**A. Years ago I helped the young man who started Circle Peak Capital by being on an advisory board. He was a graduate of my school.**

Q. And when did that relationship between you and Circle Peak Capital terminate?

**A. I really don't recall.**

**I haven't been involved with Circle Peak for some time. I made an investment. But that's over.**

Q. Do you know members of the -- strike that question.

Do you have relationships with any of the members of the board of directors of Lehman Brothers Holdings, Inc.?

**A. The board before the company went bankrupt?**

Q. Yes, before the bankruptcy.

**A. I really don't recall who's on the board of the company.**





**If you give me the names, I'll happily tell you whether I had a relationship.**

Q. Speaking of which, I forgot to tell you I bear greetings from Harvey Kreuger.

**A. Okay. Well Harvey was on the ADP board with me.**

Q. Yeah. Oh, was he?

**A. Yes.**

Q. Okay. He told me to convey his regards to you.

**A. Okay. He's a wonderful man.**

Q. He is a wonderful man. He and I sit on the -- I'm the president of the American Friends of the Hebrew University.

**A. Okay.**

Q. And he's very involved. He used to be -- he was the chairman of the Board of Governors of the university at one time.

**A. I see. I see.**

MR. COBETTO: You can ask him questions too, if he starts to --

MR. KARLINSKY: Yeah, he's allowed. I'm not under oath though.

MR. COBETTO: That's important.





MR. KARLINSKY: That's very important.

BY MR. KARLINSKY:

Q. All right. Let's turn to your report and let's look first at paragraph 21.

In paragraph 21 of Exhibit 251, sir, you say in the second sentence:

"Debt prices incorporate market participants' beliefs about the issuer's ability to repay its obligations."

I read that correctly?

**A. Yes, sir.**

**It's the third sentence. But, yes, that's a correct reading of it.**

Q. Oh, you're right. It is the third sentence.

Would you explain to me how debt prices incorporate market participants' beliefs about an issuer's ability to repay its obligations?

**A. Simply put, one element of the required rate of return on a debt instrument relates to the default probability of that instrument.**

**It's not the only determinative price.**





**The movement of interest rates generally for a security of that duration also affect price.**

**The liquidity in which -- of the market in which the security is traded are also there.**

**But what the sentence is is that insofar as there is information about default risk, it should be in the price.**

Q. You say "default risk." That's the term you use?

**A. Yes, sir.**

Q. Is that the same as credit risk?

**A. Credit risk is trying to get at the same thing, yes.**

Q. Okay. And it's also sometimes called repayment risk, is it not?

**A. It's sometimes is called repayment risk, yes.**

Q. Any other terms that cover that concept?

**A. I think anything that gets at not getting all your money back is what those terms are about.**

Q. Let me see if I understand this well. I didn't go to business school, and I've never studied finance, Professor. So I'm just a -- I'm not just a country lawyer; I'm a city lawyer. But I'm not the most sophisticated about this. So let me see if I can understand it.

You say first, one element of the required rate of return on a debt instrument relates to the default probability of that instrument.

Explain that particular concept to me.

**A. Sure.**

**The easiest way to think about it, suppose I'm going to lend you money for a period of time that we agree on.**

**Now the question is what's the appropriate compensation for me.**

**Well one thing I have to do is cover my opportunity costs of just putting it in some safe asset, like a Treasury security.**

**So that's a benchmark.**

**And movements and overall yields for that duration will affect what I'm going to**





**charge you.**

**I also need to charge you an additional premium with my assessment of your credit risk.**

**What's the likelihood that you're going to pay me back. And if there is a default, what would I expect to get back.**

**A default doesn't mean I get nothing back, but what is -- what is my assessment of loss.**

**So I would figure all that into the required return.**

**The price of a debt instrument simply capitalizes the stream of payments of that required return and the return of principal.**

Q. And when you say it capitalizes it, you convert it into a price?

**A. Yes. So a higher required -- an increase in a required rate of return for a given instrument will lower its price, and vice versa.**

Q. And is it your view that the market is generally efficient in pricing credit risk in debt securities?

**A. Certainly in the Treasury market it is**





**extremely efficient, and many corporate bond markets it is very efficient.**

**You know, there are some very seldom traded bonds that would be less efficient.**

**But in all cases I think one could still assume that the information is generally the price.**

Q. Did you take that into account, that particular aspect of this matter, that is that where the -- where a debt instrument doesn't trade very often; did you take that consideration into account in reaching your opinions here?

**A. I guess I'm not quite sure what you mean.**

**What I do with the data is compare information about the note at issue, and indeed Lehman notes generally, with comparable firms.**

**And I also used data on credit default swap spreads that are very liquid.**

Q. There's a Latin expression that's used in economics, ceteris paribus.

**A. Yes. All other things equal.**

Q. All other things equal.

Well all other things equal here, I





take it the spread between risk free investment and actual -- what is that -- oh, I'm sorry, that's -- I withdraw the question.

All things being equal, I take it that the spread between a risk free investment and the actual return on another investment reflects the repayment risk?

**A. No, that would not be accurate.**

Q. Not accurate?

**A. It would be one of the factors.**

**A lot of recent research in bond yields focuses on so-called macro factors.**

**So probabilities that a whole series of securities default all at once.**

**Sometimes it's called jump-to-default risk or sometimes contagion risk. Those are slightly different measures of the same thing.**

**The default risk is in there, but it's not only the own default risk that's in there. It's also the macro premium.**

**In addition, for some securities there are also tax factors and liquidity factors.**

**There's a whole literature that tries to parse those out.**

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**But if your question is is one of them default risk and is that important, yes.**

Q. So the answer to my question is both yes and no?

MR. COBETTO: Objection to the form.

**A. It is in there, but it's not all; if that's what you mean by yes and no.**

Q. Yeah, it's in there, but it's not all.

**A. Correct.**

Q. You say there are other factors?

**A. Yes, sir.**

Q. The ones you've just identified?

**A. Yes, sir.**

Q. And that is still the case, assuming all things are equal, assuming all else equal?

MR. COBETTO: Objection to the form.

**A. Well one way you might consider the all is equal example is to hold all those other factors equal, would a change in default risk change the required rate of return; yes.**

**If that's what you're asking.**

Q. That's I think a fair answer. Thank you.

In your view -- I asked you before



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about the efficiency of the market and pricing credit risk and debt securities.

In your experience and in your view are market prices ever incorrect?

MR. COBETTO: Objection to the form.

**A. Well all the market -- I'm not sure what you mean by "incorrect," because it must be relative to something.**

Q. In terms of pricing credit risk and debt securities.

**A. Well, ex-post we know prices can get things wrong.**

**If I set a price today -- I decide to lend you money today, I form my impression of your credit risk, I might learn tomorrow that I judged incorrectly.**

**So an ex-ante price is just the market's expectation given the available information.**

**It doesn't necessarily mean it's spot-on.**

Q. Can you bring to mind instances that you could identify where the market did not accurately price credit risk?



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**A. Well the easiest example for me to give is broader than credit risk.**

**I'm thinking of structured products. We know that --**

Q. Structured investment vehicles, for example?

**A. Well what I was thinking of were some asset-backed security arrangements, where market participants thought they were pricing individual security risk in those portfolios, but abstracted from common risks that could destroy those correlations.**

**So in that sense, those we know now from hindsight were wrong, to give you an example.**

Q. And what you're referring to is the fact that there was -- let's see if I can get this right -- there was -- there was common risk with respect to the economy itself in the subprime mortgage sector, for example?

**A. Well, yes.**

**I mean, just to give an historical example, there were a lot of corporate defaults in the 2001 recession.**



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**And it was not so much that individual corporate credit assessments were right or wrong, but the overall economy performed worse than people thought.**

**In the case of the housing market, I think many of these vehicles were focused only on correlations inside the vehicle, but not considering the possibility could house prices generally go up or down.**

Q. Exactly what I was thinking.

**A. And that's -- right.**

Q. Good.

**A. And that was a mistake.**

Q. In your report you use the term "price of debt."

**A. Yes, sir.**

Q. And that's the same thing effectively as credit spread, is it not?

**A. I'm not sure where I use it. I'm probably referring to a bond price.**

**But, yes, you can get there.**

**You can take the -- I can go back and forth between the two constructs.**

Q. Okay. When you say you can go back

and forth between the two constructs, they're interrelated in effect?

**A. Correct.**

Q. Let's turn in your report to paragraph 10.

In paragraph 10 you start off by saying:

"Lehman's bond prices generally traded above 90 cents on the dollar, and most of the time above 95 cents on the dollar, until the week preceding its Chapter 11 filing on September 15, 2008. Lehman's bond prices and changes in bond prices were inconsistent with investors' expectations of other firms near bankruptcy."

Correct?

**A. Yes, sir.**

Q. And that's the first bullet in paragraph 10?

**A. Yes, sir.**

Q. You use the language in that paragraph, "until the week preceding the Lehman Chapter 11 filing on September 15."

What date did you actually mean by that?





**A. I believe the way to see that is just to go right to the exhibit.**

Q. Sure.

**A. So go to -- well Exhibit 3 is in pictures. You'd have to get like right up until the last day.**

**If you look at Exhibit 4, just looking at bond value --**

Q. Yes.

**A. -- as a percent of value, 12 months before.**

**So even five days before the at-issue note is almost 99 cents on the dollar.**

**Two days before, literally right up to it, it's like 85 cents roughly.**

**And then the picture version of it is in Exhibit 3.**

Q. Okay. And we're looking at --

**A. I mean, in the backup I would add each day.**

**But in the exhibit that's the best I can do, is point you to the 2 and five.**

Q. I'm sorry, we're looking at the bottom of the spreadsheet --





**A. Correct.**

Q. -- in Exhibit 4, correct?

**A. Yes, sir.**

Q. Where you have Lehman generally --

**A. Lehman for the top 25, that's what I mean by Lehman.**

**And then the at-issue note is the at-issue note.**

Q. Good. And the first one that's footnote 9?

**A. Yes, sir.**

Q. That is the first entry on Lehman?

**A. Right.**

Q. And you say those were the Lehman company's 25 largest U.S. dollar debt issuances?

**A. Yes, sir.**

**That came from Exhibit 1 where those issuances were enumerated.**

Q. Okay. And the Lehman at-issue note, that's your term for the note that's in issue in this case, correct?

**A. Yes, sir. That's what I mean. Thank you.**

Q. And you say that the note at issue in





this case was trading at 84.5 percent of -- that would be 84.5 percent of par value?

**A. No.**

**It's 84.5 percent of the 12 month prior.**

**It probably is about what you said. But literally what's in the figure is the percent of what it was 12 months prior to bankruptcy. I don't know what it was on that date.**

Q. I understand.

And that that was two days prior to the bankruptcy filing.

Now you wouldn't count the date of the filing in computing that two days, correct?

**A. That's correct.**

Q. So I represent to you that -- well actually I'm sure you know this.

What day of the week was the Lehman bankruptcy?

**A. Well the filing was a Monday.**

Q. And two days prior to that would have been Thursday the 11th, September 11, 2008?

**A. Yes, yes.**

Q. And it's your view then that -- so

So clearly somebody got surprised.
Second, looking at bond prices, they were very different from companies that had gone bankrupt.
Then I looked at whether Lehman had raised equity or debt capital, and found out that it had.
Again, very unusual for a firm you would think is about to go bankrupt.
Then I looked at the credit default swap spreads where Lehman looked different from companies that went bankrupt.
And then finally I looked at equity analyst reports.
So each of those are pieces. I don't view any one as dispositive.
Q. At what point in time -- and I hate to use that phrase, but at what point in time in your view did Lehman's bankruptcy become reasonably foreseeable?
MR. COBETTO: Objection to the form.
A. Well I think that's a question that almost has to go to policymakers.
When Hank Paulson came to Columbia





last week, he did an on-the-record discussion with our students.
And he was clearly working on this problem that weekend, thinking that he had a solution in hand. That's his words to my -- to my students.
I was not a participant in that transaction, so I can't have a view.
We do know that the market certainly at the close -- going into the weekend still had prices on securities very different from what one would expect of a bankrupt enterprise.
Q. So you would say that on September 12, that Friday, at the close of trading -- I mean there really isn't any close of trading anymore, but close of business on Friday, September 12, you would say even at that point that the market wasn't reasonably foreseeing bankruptcy?
A. It is certainly the case that that is true. You did not see the wholesale run to the exit door for Lehman, even moments before it went bankrupt.
I think part of that, as I argue in the report, is conditioned by prior government





action, government action which of course did not happen this time.
Q. So it might also be fair to say that the market was anticipating government intervention?
A. It's entirely possible.
And that intervention could indemnify bond holders, as it had in Bear Stearns essentially.
Q. And the government did that in the Bear Stearns situation by agreeing to guarantee all of Bear Stearns' obligations when JP Morgan Chase bought Bear Stearns?
A. That's correct.
The equity holders took a very large hit. They were almost wiped out. But the debt holders were indemnified.
Q. Yeah, when I was referring to obligations, I meant debt.
A. Yeah.
Q. There are no obligations per se I guess that go with -- I guess to pay a dividend or something would go with common stock?
A. Donuts at the annual meeting.





Q. Donuts at the annual meeting?
A. But not a lot.
Q. Exactly. Krispy Kreme Doughnuts.
Professor Peavy was talking about Krispy Kreme Doughnuts yesterday.
A. Oh, okay.
Q. Don't ask me why.
MR. COBETTO: Because you asked him.
Q. About the donuts?
Do you think, Professor Hubbard, that the market's perception of default -- let me say it differently.
Do you think, Professor Hubbard, that the market's perception of the likelihood of default by Lehman increased between March of 2007, when the at-issue note was purchased, to the date immediately prior to the filing of the bankruptcy, that is September 12, 2008?
A. Well we don't have to speculate, because I actually use data from the CDS market.
So we can go back -- see if I can find an exhibit for you.
So Exhibit 20 is the last, but they start with 15.

**So you can actually plot Lehman's -- first it starts with one year CDS spreads.**

**And as you can -- the answer to your question would be, yes, CDS spreads rose.**

**They also rose for other institutions that did not go bankrupt.**

**And then there's a comparison to firms generally as the exhibits proceed.**

Q. Let me see if I've got that answer clearly, because I'm not certain I do.

(Pause in the record.)

Q. So if I understood you correctly, you confirmed, based on your looking at Exhibit 15, that CDS spreads rose in the period of time that I gave you, that is, between -- well actually it starts -- this graph starts at July 1, 2007. The period of time I gave you is March 2007.

But you confirm that CDS spreads for Lehman rose during the period of time that your graph shows.

And my question to you wasn't precisely did CDS spreads rise.

It was whether you believed that the risk involved in holding Lehman debt increased,





and specifically the note at issue here; whether the risk in holding that increased during that applicable period?

A. **We know that the CDS spreads went up for financial institutions generally. We see that in Exhibit 18 and Exhibit 19.**

**Lehman is tracking those.**

**And the market generally views financial institutions as having a rising risk profile.**

**At the end of the day it's about price.**

**And we can go back to the discussion of the earlier exhibit, where we see a holding of the -- general holding of the price of Lehman debt.**

Q. So there's no question that the market was viewing financial sector firms as increasing in risk during the period of time that I specified?

MR. COBETTO: Objection to the form.

A. **Generally financial firms had increasing CDS spreads, yes, during that time period.**





Q. And therefore, to answer my question, that the market was viewing such firms' debt with -- as having increased risk?

A. **Yes.**

**Although if you look at Exhibit 13 and 14, huge differences between that increase and what actually you would see for bankrupt firms.**

**So, yes, your time series is right, but your cross section would be wrong, if your intent is to compare it with what CDS spreads for bankrupt firms look like.**

Q. So you would say that even though the market viewed such firms' debt as being increasingly risky, in your view that risk profile, as it changed during that period of time, was still not consistent with the risk profile one would see in firms that did file for bankruptcy?

A. **That's correct.**

**And we know that several ways.**

**We know that from the comparison of the CDS spreads. We know from the fact that Lehman raised equity and debt capital during the period that you mentioned. And we know it from**





**the bond price discussion in Exhibit 4.**

Q. Did you reach any opinion with respect to whether the Lehman at-issue note was reasonable and appropriate for the SCF Arizona portfolio?

A. **I wasn't asked to opine on that, no.**

**Simply on the question of whether Lehman's bankruptcy was foreseeable.**

Q. And nonetheless, have you any opinion on whether the Lehman at-issue note was in fact reasonable or appropriate for the SCF Arizona portfolio?

A. **What I note in the report is that the Lehman securities were held widely in money market funds, which were extremely conservative investments.**

**But I haven't reviewed the sec lending agreement.**

Q. And you have to review the securities lending agreement to reach any opinion on that subject?

A. **Well I would want to see what the parties had agreed upon.**

**But given that money market funds,**

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**which are the most conservative investment management possible, were holding such notes, it would be hard for me to imagine.**

**But I wasn't asked to opine on that subject.**

Q. Okay. And do you know whether anyone in this case has given an opinion on that subject?

**A. I don't, no.**

Q. Were you asked to opine with respect to the suitability of the Lehman at-issue note for the SCF Arizona portfolio?

**A. I must not be understanding, because I thought that's the question you just asked me.**

Q. I actually used different words.

**A. You said "appropriate."**

Q. Reasonable and appropriate.

And now I'm asking the same question, substituting the word "suitability."

**A. Well --**

MR. COBETTO: What's the difference?

**A. I'm not a lawyer, so I can't -- I wouldn't even begin to want to parse it.**

**To me I'll just go to "appropriate and**



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**okay" as an economist.**

**But I've seen no evidence and data that would suggest that it wouldn't be appropriate.**

**But as I answered you before, I haven't reviewed the securities lending agreement.**

**So if there was a prescription on securities that started with the letter L or something like that, I wouldn't know that.**

Q. Have you ever seen a prescription in a securities lending agreement of buying securities that started with the letter L?

**A. No.**

**But my point is I don't know -- it would be hard for me to imagine this is inconsistent with the agreement, but I haven't reviewed the agreement.**

Q. I wasn't trying to trip you up with the use of the word "suitable."

"Suitable" to me is -- you're not a lawyer, that's right.

But "suitable" to me is the term that used to be used much more often in the judicial



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opinions that arose out of what used to be called many, many, many years ago the, "Know Your Customer Rule" --

**A. Right.**

Q. -- in the Stock Exchange.

**A. Right, right.**

Q. And there's an equivalent FINRA rule of course.

**A. Right.**

Q. You don't see any difference, and I don't see any difference either, by the way, between "reasonable" and "appropriate" and "suitable"?

**A. Again, I'm -- I'm not a lawyer.**

**I wouldn't understand such a difference, no.**

Q. Okay. That's a good answer.

And, as you told me, you haven't reviewed the agreement between Wachovia and SCF?

**A. That's correct, I have not.**

Q. You didn't ask to review it?

**A. No. Because it wasn't germane to the question I was asked to do.**

VIDEO OPERATOR: Excuse me, Counsel.



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I have 5 minutes left on the tape.

MR. KARLINSKY: All right. Why don't we take our break right now.

VIDEO OPERATOR: The time is 11:50 a.m. And this marks the end of tape number 2.

(Luncheon recess taken from 11:50 a.m. to 1:16 p.m.)

VIDEO OPERATOR: The time now is 1:16 p.m. And this marks the beginning of tape number 3.

BY MR. KARLINSKY:

Q. Professor Hubbard, I had asked you some questions at the end of the session this morning concerning your views on the market's pricing increasing risk into the debt securities of financial services firms.

And you recall that dialogue you and I had?

**A. Yes, sir.**

Q. I'd asked you a specific question, which I want to repeat to you, because I didn't get the answer clearly enough, clearly enough for my purposes.

**investment banks.**

Q. And that was your criteria for choosing them?

**A. In this particular -- as you see, there are lots of different samples that I used.**

**But for this picture, yes.**

Q. Did you consider using any others, any other investment banks?

**A. I did in the others look at a larger set of financial institutions.**

Q. Where would I find that?

**A. Well if you look at Exhibit 17, it also has other financial institutions.**

Q. On 17 --

**A. Exhibit 17 you can see AIG, Bank of America, Citibank.**

Q. Any others than those?

**A. The general exhibits you saw earlier had the other firms.**

**So if you look at -- the firms that filed for bankruptcy exhibits, you know, those are certainly other firms.**

Q. Is there -- this "similar pattern" term that you employ, is there a statistical



definition of that in your view?

**A. I'm intending it to be a plain look at the picture.**

**I mean, you can see the Morgan Stanley, which didn't go bankrupt, had the highest CDS spread of all.**

**But, yes, the patterns, the co-movements are similar.**

Q. So there is no statistical definition?

**A. You could easily --**

MR. COBETTO: Objection to the form.

**A. There are statistical correlations that one can do.**

**It's not really necessary, given the clarity of the patterns.**

Q. Well that's what I'm getting at.

Did you do any statistical correlation?

**A. That's not necessary for the point that I'm trying to make.**

Q. Because you saw that the pattern was similar just looking at the graph?

**A. The pattern that is the key to the argument in the text is the Exhibit 13 and 14**



**pattern, where, unless you're blind, I think you can tell the difference between Lehman and bankrupt firms.**

**The others are simply just information that show the whole sectors moving.**

Q. Did you perform any analysis on -- well strike that question.

Do you understand that the Lehman spreads increased more than the spreads for the other firms that you determined were comparable?

**A. Which figure are we --**

Q. Well you can -- actually I would like you to answer that without reference to any figure.

And I'll repeat the question if you'd like.

MR. COBETTO: Objection.

**A. Well I assume -- I assume you're talking about Exhibit 15.**

Q. No, I'm not talking about any exhibit at all.

**A. Well we know that it matters, sir, because we just had a conversation about Exhibit 19, where I think we both agreed we had broad**



**tracking with a financial index.**

**Now you appear to have wandered to Exhibit 15, where the highest spread movements are actually for Morgan Stanley.**

Q. So your view of it is that the spreads for Morgan Stanley increased more than did Lehman's spreads?

**A. Look at the picture.**

Q. And that's what you believe is reflected in Exhibit 15?

**A. I'm afraid your eyes can tell you that. There's a clear peak for Morgan Stanley, and it did not go bankrupt.**

Q. Yet.

Did you analyze any of the business or financial fundamentals of Lehman?

**A. I reviewed the Thomson universe of analysts' reports on Lehman, which have extensive commentary about their view.**

**Because what's relevant from my analysis is the market. So in that sentence, yes.**

**I wasn't asked to perform my own valuation of Lehman, merely to look at the**

**markets.**

Q. Do you know what materials Wachovia accessed when it held this bond -- the note at issue, not the bond, but the Lehman note at issue here, during the period March '07 through September of '08 on behalf of SCF Arizona?

**A. I'm sorry, I don't understand the question.**

**Which analyst Wachovia read or --**

Q. Well, yeah, what materials or analysis it accessed in connection with its continuing to hold the at-issue note?

**A. I don't.**

**That's not my assignment. It wouldn't be germane for me.**

Q. How about the question of government intervention or bailout or something like that, what's your view on how the market regarded that possibility or eventuality during the period March '07 through September of '08?

**A. Well there's certainly extensive commentary.**

MR. COBETTO: I'm sorry, before you go on, did you mean March '07 through all the





way through '08, so that whole time period?

Q. Yes.

**A. Oh, March '07.**

Q. Yes.

**A. All right. In March '07 I think there's relatively little impression of any government bailout.**

**In fact, the Federal Reserve chairman is giving speeches well into '07, where he says the housing crisis is contained and won't really affect the economy, so --**

Q. Let's take March '08 and bring it up through September.

**A. Post Bear Stearns, I think opinions did shift. Because Bear Stearns equity holders, as we were talking about before lunch, were largely wiped out, but debt holders were indemnified.**

**Lehman of course is much larger than Bear Stearns.**

Q. And you say that the market's view of the possibility of intervention had changed in that period?

**A. We know that Bear Stearns happened.**





**It was dealt with in a particular way for a smaller firm.**

**It's not central to my argument one way or the other.**

**But if you're asking me is that my view, yes, that would be my view.**

Q. And is it also your view that the market priced that possibility into Lehman's debt securities?

**A. What we can observe, and I present, is that bond prices remained very high as equity prices declined.**

**One, that is consistent with that story, but it's not a test of it.**

Q. It's consistent, but it's not positive proof of it?

**A. It's absolutely not positive proof.**

Q. Would you turn to Exhibit 15.

I just want to cover this with you so that I'm clear on this.

Let's come back to a fundamental.

What does it mean when the CDS spread on a security increases?

**A. You can think of the CDS market almost**





**as like an insurance market.**

**So what you're doing is buying protection against default. That's what a spread is telling you.**

**So a rising spread means you're having to pay more for that insurance. So the easy inference is the risk of that security has gone up.**

Q. And, generally speaking, just to be clear on Exhibit 15, would you characterize for us what conclusions it demonstrates?

**A. Well you can see that in the pre-crisis period you had fairly modest CDS spreads for most of these.**

**Unfortunately this is in black and white. So I can't identify exactly who the spikes are.**

**Where you have Bear Stearns obviously and its episode, and then you've got a rising after the beginning of the summer, more for Lehman than the others. And then you have Morgan Stanley blowing out.**

Q. Where do you see Morgan Stanley blowing out?

**If you look at the data, you do see that Lehman's bond price declines more than I think the median, to go back to the -- not so much the note at issue here, but Lehman bonds generally declined relative to the decline in the index as a whole.**

**So there's both a Lehman effect and a common effect.**

**Now for your note that's not true.**

**But that would be true for the others.**

Q. One of the things that you say in your report is that a maturity mismatch between Lehman's assets and liabilities created the potential for a run on the bank.

First of all, what is, "a run on the bank"?

**A. A traditional run on a bank, a real bank, a commercial bank, is --**

Q. A real bank as opposed to an unreal bank?

**A. Well, no.**

**The classic example is a commercial bank of depositors.**

**So a bank holds loans. And it has**



**private information about those loans.**

**If I become concerned about the value of the bank -- assume away deposit insurance for the moment -- the only way I know to get my money back is to be first in line.**

**And so the classic run on the bank is something happens that creates uncertainty about a bank's assets. People run to get their money out first.**

**Deposit insurance was designed to stop that kind of run and to stop it from going from bank to bank, a panic instead of a run.**

**This time around was a shadow banking run.**

**So many noncommercial bank institutions were doing bank-type financing, that is, taking in money short and investing it long.**

**That liquidity transformation or maturity transformation is one of the oldest problems in finance.**

**And it's always troublesome.**

**And so when you have liquidity dry up or an inability to fund yourself on the short end, you're in trouble.**



Q. Now one of the other things I saw in your report, sir, is that you observed that after a company defaults on its debt or files for bankruptcy, its bond trade on average for 30 to 40 cents on the dollar depending on the seniority of the bond?

**A. That's a long term calculation from rating agency data, yes.**

Q. Did you make that calculation yourself, or is it just generally an available calculation?

**A. The calculation comes from the rating agencies.**

Q. It comes from the rating agencies?

**A. Yes.**

Q. A rating agency?

**A. The one cited I believe was S&P.**

**But I'd have to go back and look at the --**

**(Document review.)**

**A. Yeah, I'd have to look at the backup on that. I believe it's S&P.**

**But, yes, it's from the rating agencies themselves. It comes from a study over**



**a 25 year default history.**

Q. Okay. I'll find it in the report --

**A. Yeah.**

Q. -- somewhere.

I'm sure I know the answer to this, but you've never met any of the participants in this case, to your knowledge?

**A. To my knowledge, no.**

Q. Never met anyone at SCF Arizona?

**A. No.**

**I had never heard of SCF Arizona before this case.**

Q. I'm sorry?

**A. I didn't know the firm, so --**

Q. They're nice people.

**A. I'm sure they are. I just said I don't know them.**

Q. Have you met any of the Wachovia global securities lending people that played a role in this case?

**A. No, sir.**

Q. Did you -- have you talked to any of the Wachovia people in connection with your assignment in this case?

A. **No, sir.**
Q. Other than counsel of course?
A. **Other than counsel, no, sir.**
Q. Right.
And you certainly didn't interview any of the Wachovia people?
A. **No, sir.**
Q. And you yourself have no knowledge as to what they did or didn't do?
A. **No, sir.**
**That's not my assignment.**
Q. What would you have expected to see in terms of credit analysis in a securities lending program such as the one administered by WGSL, Wachovia Global Securities Lending, with respect to the Lehman at-issue note?
MR. COBETTO: Objection to the form.
A. **Well generally -- again, I haven't seen the securities lending agreement.**
**But generally in securities lending agreements it's relatively conservative investment styles.**
**You want some yield, but you're not reaching all the way. So moderation in risk, and**





**making sure that you think it's a sound credit.**
**And pretty much the same as any other credit analysis.**
Q. Well what do you do to reach that conclusion, moderate risk and -- you say moderate risk.
What is that, in terms of quantifiable risk in the market?
A. **I haven't read the sec lending agreement. So I have no idea what the client wanted.**
Q. Understandable.
A. **Generally speaking, my comment was sec lending arrangements tend to be relatively conservative.**
**And so you wouldn't reach for too much risk.**
**And looking at these bond prices on your note, they obviously did not, until they went bankrupt.**
Q. And what do you do to ascertain that the credit is a sound credit; what does a credit analyst typically do?
A. **Well you're looking at both an issuer**





**and an issue.**
**So on the issuer you're trying to get a sense of the financial health of the business and the market in which it operates.**
**And on the issue you want to make sure that you're at a position in the capital structure that enables you to have, you know, a not terribly risky recovery.**
**So you'd want to do both of those.**
Q. And would you expect that analysis to be reflected in some note or memorandum or writing?
MR. COBETTO: Objection to the form.
A. **It might or might not.**
**Portfolio managers, investment advisors, sec lending program, these are all, you know, day-to-day decisions.**
**What you would expect is that there is, you know, an agreed-upon risk profile with a client.**
**But beyond that, there would just be discretion and continued discussion.**
Q. How do you analyze the financial health of a firm?





A. **For me it always starts with the business the firm is in itself.**
**Do I believe this is a sound business with long term fundamentals.**
**Then I look at the financial picture of the firm and try to get a sense of the firm's capital structure.**
**This is also a financial institution; so also the way it's funding itself, what are the risks to which it's exposed.**
**All of that would go into a credit analysis.**
**Keep in mind, we're talking about an analysis of credit that is debt.**
**So I'm more concerned with the chance I'm going to lose my money than the chance that there's some great upside, because I don't get that.**
Q. You'd get the upside if you were investing in an equity security?
A. **Right.**
**But if we're looking at a senior unsecured note, if Lehman booms, that doesn't help me. But if Lehman goes under, I take it.**